NEBRASKA

FOREST SERVICE RESEARCH AND DEVELOPMENT

STATE FUNDING HISTORY	Enacted FY 2003 ($)	Enacted FY 2004 ($)	Pres. Budg. FY 2005 ($)
LINCOLN			
RMRS-4551 Tree-based Buffer Technologies	619,000	642,000	742,000
NEBRASKA TOTAL	619,000	642,000	742,000

RESEARCH & DEVELOPMENT, a division of the USDA Forest Service (FS R&D), strives to be the "go to" organization for information and solutions to sustain forests and rangelands and the values they provide people. FS R&D has the flexibility to address today's issues effectively and to respond to tomorrow's needs. Among the world's leaders in forest conservation research, scientists contribute to the stewardship of land, real property and society by providing research results that help create jobs and affordable homes, and improve the health of trees, forests and forest ecosystems. Innovative research products permit the Forest Service and other public and private land managers to monitor and manage forest responses to environmental change, contributing significantly to the sustainability of the nation's forests and rangelands and improving human health.

FS R&D operates six research stations, the Forest Products Laboratory, and the International Institute of Tropical Forestry located in Puerto Rico. It employs over 500 scientists and hundreds of technical and support personnel at 67 field sites throughout the nation. The FY 2005 President's Budget includes $280,654,000 for Forest and Rangeland Research.

The Rocky Mountain Research Station (RMRS), headquartered in Fort Collins, Colorado, maintains forest and rangeland research and development programs and facilities in 10 states of the Interior West (AZ, CO, ID, MT, NE, NV, NM, SD, UT, and WY) and covers ND and KS. The FY 2005 President's Budget includes $43,082,000 for the Rocky Mountain Research Station

The Station currently maintains a research work unit and the USDA National Agroforestry Center (NAC) in Lincoln that employs 3 scientists and 10 other professionals and support personnel.

LINCOLN

USDA National Agroforestry Center (NAC). The Center develops and delivers technology on a broad suite of agroforestry practices to resource professionals who assist landowners and communities throughout the nation. NAC is an inter-agency collaborative effort that includes USDA FS R&D and S&PF and the Natural Resources Conservation Service.

RMRS-4551, Tree-based Buffer Technologies for Sustainable Land Use in the Central U.S. The R&D program at NAC is focused on providing the science for developing tree-based buffer systems that can protect water quality, sequester carbon, enhance crop and livestock production, and create wildlife habitat for private landowners and communities.

FY 2005 PROGRAM CHANGES:

- The President's budget maintains the Station ongoing program of research focused on sustaining healthy forests and rangelands in the Interior West. In response to the President's Healthy Forest Initiative, an additional $1,725,000 is focused on improving watershed conditions to provide clean and abundant water from western forests and rangelands and funding is provided for addressing the threat invasive species pose to our native ecosystems.
- As part of the President's budget to improve watershed condition, RMRS-4551 is increased by $100,000 for research on riparian buffers designed to effectively reduce input of sediments, fertilizers, and pesticides in surface waters while providing benefits to landowners and society.
- Forest Service Research and Development will lead an Agency-wide effort to optimize the delivery and practical use of research findings. This is essential to successful implementation of Forest Service priorities, including the President's Healthy Forest Initiative. Opportunities have been identified that leverage current science and technology applications efforts in healthy forests applied science, watershed management, invasive species, hazardous fuels utilization and management, and community preparedness. New funds in FY 2005 will be targeted to leading-edge technical assistance on a competitive basis.

SIGNIFICANT RESEARCH PRODUCTS:

- Models are being developed for:
  - Carbon Sequestration of Agroforestry
  - Spatial Consideration for Buffer Effectiveness
  - Quantifying Pollution Control Capability of Buffers
  - Enhancing Aquatic Health With Riparian Management
  - Urban Stormwater Control Using Agroforestry
- Provide relevant information for developing tree-based buffer systems that can protect water quality, enhance crop and livestock production, sequester carbon, and create wildlife habitat for private landowners and communities. Decision-making tools include:
  - Buffers: Conservation Economic Decision Tool
  - Buffer Capability and Design Tools for Water Quality
  - GIS-Guided Assessments for Biodiversity in Buffers
  - Suitability Assessments for Diversifying Rural Income
  - Visual Computer Simulator of Conservation Practices
  - Plant Selection Guide for Riparian Buffers
- Annual 1890 University Faculty Training Workshop held in collaboration with the 1890 Historically Black Colleges and Universities.

- Scientists participated in the China-U.S. Technical Exchange for Soil-Water Conservation 2003

SOME CLIENTS / COLLABORATORS:

City of Topeka, Kansas
Environmental Protection Agency
Kansas State University
Mid-America Regional Council (Kansas City)
National Association of Conservation Districts
National Association of Regional Councils
National Association of Resource Conservation and Development Councils
National Association of State Foresters
Nebraska Department of Environmental Quality
Penn State University
University of Nebraska, University of Missouri,
USDA Agricultural Research Service
USDA Foreign Agricultural Service
USDA Natural Resources Conservation Service
Utah State University
1890 Historically Black Colleges & Universities